5. Family

Program Name: Family.java   Input File: family.dat

You have decided to create your family tree, but it has been very confusing. You have a lot of information about parent-child-sibling relationships within your family, but you are having trouble organizing it. Can you write a program to help?

Input

The first line is N, the number of relationship lines that follow. The next N lines are of the format *Name1 relationship Name2* where Name1 and Name2 are exactly one word each (only alphabetic characters) and relationship is father, mother, or sibling (i.e. brother or sister). It can be read as "Name1's <relationship> is Name2". A person will have at most one father and one mother listed. There will be no inconsistencies such as a person having two relationships with one person.

Output

For each person, output his or her name on a line. Then on the next line, put the word Father, followed by a colon and a space, followed by the person's father. If not in the given database, put Unknown. Then do the same for Mother, and Siblings. Each sibling should be listed on a separate line. Do not assume relationships that are not explicitly stated in the input; for example, even if two people are siblings, don't infer that they have the same father or mother. If a person's sibling is listed, assume that the relationship is mutual. However, do not assume that the sibling relationship is transitive i.e. if A is listed as B's sibling, and B is listed as C, do not automatically assume that A and C are siblings.

The names are alphabetically listed, and so are each person's siblings. If no siblings are known, don't output anything. Leave a blank line between two people's data.

Example Input
```
6
John father Jake
Mary sibling John
Nigel father Jake
Mary mother Amanda
Mary sibling Aaron
Mary sibling Zeke
```

Example Output
```
Aaron
Father: Unknown
Mother: Unknown
Sibling: Mary

Amanda
Father: Unknown
Mother: Unknown

Jake
Father: Unknown
Mother: Unknown

John
Father: Jake
Mother: Unknown
Sibling: Mary
```
```
Mary
Father: Unknown
Mother: Amanda
Sibling: Aaron
Sibling: John
Sibling: Zeke

Nigel
Father: Jake
Mother: Unknown

Zeke
Father: Unknown
Mother: Unknown
Sibling: Mary
```